

## Further Notes on Hawaiian Thrips With Descriptions of New Species

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(Presented by Mr. Sakimura at the meeting of December 3, 1936.)

Seven new species of Thysanoptera are added to the fauna of the Hawaiian Islands in this paper and three others, *Taeniothrips frici* Uzel, *T. gracilis* Moulton and *Thrips nigropilosus* Uzel are listed as having been found here for the first time. I am especially indebted to Mr. K. Sakimura for his keen interest in these insects and for supplying me with the material for study.

Family THIRIPIDAE Uzel, 1895  
Subfamily SERICOTHRIPINAE Karny  
Tribe SERICOTHRIPINI Priesner

### **Scirtothrips antennatus** Moul., new species.

Female holotype: Color uniformly clear light yellow except antennal segments five to eight which are grayish brown; wings clear with only veins showing darker.

Total body length .926 mm.; head length .073 mm.; width .140 mm. Segments of antenna: length (width) I, 16 (16); II, 23 (23); III, 26 (15); IV, 26 (16); V, 30 (16); VI, 33 (13); VII, 6; VIII, 9; total, 166 microns.

Head approximately twice wider than long; eyes prominent, slightly protruding, occupying fully half the side of the head; cheeks somewhat arched; without prominent spines. Mouth cone rather pointed, reaching two-thirds over prosternum. Antenna with first segment small and almost square, two globular, three and four oblong pedicellate, five and six broadly and evenly joined, with sixth longest; style about half as long as segment six.

Prothorax transverse, with a single short, moderately stout spine at each posterior angle. Legs normal. Wings fully developed; forewings with two distinct veins, each with a few scattering and irregularly placed, very inconspicuous spines.

Abdomen normal, without conspicuous spines, those at tip extremely short.

This species might have been placed in the genus *Anaphothrips*, but the rather prominent and protruding eyes, together with the

shape of the antennal segments five and six would seem to exclude it from this genus. It is particularly distinctive because of the shape of these two segments. They are closely joined and segment six is semi-cone shaped, narrowing gradually from the broad base.

Described from two specimens, taken on *Panax* hedge at Kaka-ako, Oahu, on September 26, 1930, by I. Yanagihara. Holotype in author's collection, paratype deposited in the collection of the Pine-apple Experiment Station, Honolulu. (Moulton No. 5394.)

#### Subfamily THIRIPINAE Karny

##### **Taeniothrips frici** Uzel.

Specimens collected from dandelion at Olinda, Maui, on August 31, 1933, by M. B. Linford. This is the first record of the finding of this species in the Hawaiian Islands.

##### **Taeniothrips gracilis** Moulton.

Specimens collected by K. Sakimura on *Hymenocallis declinata* August 11, 1930. This is also a first record for the Hawaiian Islands.

##### **Taeniothrips alliorum** Priesner

This species was described by the writer as *Taeniothrips carteri* but a comparison with specimens from Japan taken on onions, the same host plant, indicates that *carteri* must fall as a synonym of *alliorum*.

##### **Thrips nigropilosus** Uzel.

Specimens taken on lettuce leaves at Kapahulu, Oahu, in June, 1936. This, too, is a new record of distribution for this insect.

##### **Iseurothrips fasciatus** Moulton, new species.

Female holotype: Color yellowish brown including antennae and legs except all tarsi and tips of tibiae which are yellow; forewings yellow but banded with brown in the middle and at tip, very similar to *Hercothrips fasciatus*.

Total body length .823 mm.; head length .083 mm.; width .156 mm.; antennal segments length (width), III, 33 (20); IV, 33 (20); V, 28 (16); VI, 40 (16); VII, 16 microns.

This species is distinctive from others in the genus because of

the banded wings. There are four small spines along posterior margin of prothorax inward from the angle spines; the comb bordering posterior margin of eighth abdominal segment is complete but short.

Described from a unique specimen taken in a wind trap, October 18, 1935, at Kipapa, Oahu, by W. Carter. Holotype in author's collection. (Moulton No. 5395.)

***Isoneurothrips carteri* Moulton, new species.**

Female holotype: Color uniformly clear yellow including first two antennal segments; three to seven abruptly and uniformly brown; all prominent body and wing spines brown.

Total body length 1.12 mm.; antennal segments length (width), III, 30 (20); IV, 30 (18); V, 23 (16); VI, 36 (16); VII, 20 microns.

Head transverse; interocellar spines placed between posterior ocelli; mouth cone rather pointed reaching across prosternum. Three small spines on either side along posterior margin of prothorax inward from angle pair. Median spines on metanotum placed about sixteen microns back from anterior margin. Comb on posterior margin of eighth abdominal segment complete. Fore vein of forewing with nineteen and hind vein with fourteen regularly placed spines.

This species is very similar in appearance to *williamsi* but easily separated by the shorter and more compact intermediate antennal segments and by the placement of the metanotal spines, in *williamsi* these are near the anterior margin of the segment while in this new species they are placed well back from the margin.

Described from a single specimen taken in a wind trap at Kipapa, Oahu, June 1, 1934, by W. Carter. I take pleasure in naming this species after the collector. Holotype in author's collection. (Moulton No. 5396.)

***Merothrips hawaiiensis* Moulton, new species.**

Female holotype: Color light brownish yellow with head and first two antennal segments more distinctly yellow, other antennal segments brown; wings washed with brown; crescents of ocelli orange.

Total body length 1.1 mm.; head length .093 mm.; width .09 mm.; antennal segments length (width), II, 26 (23); III, 40 (20); IV, 40 (18); V, 30 (13); VI, 30 (13); VII, 30 (13); VIII, 36 microns.

Head approximately as long as wide, angular in front, cheeks almost straight and parallel; eyes occupying about one-half the length of the head; antecellar spines equal in length to the first two antennal segments, postoculars somewhat shorter.

Prothorax longer than head, trapezoidal in shape, each fore tibia armed with a small tooth; fore and hind femora enlarged as characterized in the genus; wings fully developed, with two veins, the fore vein with twelve and the hind vein with fifteen spines. Terminal abdominal spines long.

This species differs from *williamsi* Priesner in its smaller head, more slender antennae and by the smaller fore tarsal tooth; *cognatus* has the eyes produced ventrally; in *fusciceps* Hood, the head is 1.5 times as wide as long and the eyes are relatively longer and the antennal segments are much stouter.

Described from two specimens taken in wind traps October, 1935, at Molokai by W. Carter. Holotype in author's collection, paratype deposited in the collection of the Pineapple Experiment Station, Honolulu. (Moulton No. 5397.)

Superfamily PHLOETHRIPIDEA Hood, 1915

Family PHLOETHRIPIDAE Uzel, 1895

Subfamily PHLOETHRIPINAE Karny, 1921

Tribe HOPLOTHROPINI Priesner, 1927

### **Oedemothrips laciteps** Bagnall, 1910.

One female specimen taken while sweeping among *Carex oahuensis* March 31, 1935, on Mt. Kaala, Waianae, Oahu, by H. S. Au. (Moulton No. 5398.)

### **Hoplothrips paumalui** Moulton, new species.

Female holotype: Color chestnut brown with tips of fore femora, fore tibiae and all tarsi yellowish; antennal segments one, two and four to eight dark brown with two shading yellowish toward tip and three of lighter brown shading yellowish at base; wings clear.

Total body length (abdomen distended) 2.0 mm.; head length .19 mm.; width .19 mm.; tube length .16 mm. Segments of antenna length (width), II, 50 (33); III, 63 (30); IV, 56 (30); V, 60 (30); VI, 56 (26); VII, 36; VIII, 36 microns.

Head approximately as long as wide, broadly rounded in front, cheeks straight and parallel; eyes large occupying almost one-third the side of the head; ocelli small, posterior pair immediately contiguous with the inner sides of the eyes; postocular spines placed close behind eyes, long and transparent; antennae and mouth parts normal to genus.

All normal spines present on prothorax, long, transparent and with dilated tips. Fore femora only slightly thickened, fore tarsi unarmed. Wings fully developed, with 4-6 double fringe hairs. Tube about eight-tenths as long as head.

This species may be compared with *laticornis* Bagnall but separated by its clear wings (they are smoky in *laticornis*) and by the unarmed fore tarsi. In *laticornis* each fore tarsus is armed with a sharp tooth.

Described from three specimens, the holotype taken on *Emilia sagittata* at Paumalu, Oahu, August 25, 1930, by K. Sakimura, and two paratypes taken in wind traps at Kipapa in 1935 by W. Carter. Holotype in author's collection, paratypes deposited with the Pineapple Experiment Station, Honolulu. (Moulton No. 5399.)

#### Tribe HAPLOTHRIPINI Priesner

#### **Haplothrips (Hindsiana) sakimurai** Moulton, new species.

Female holotype: Color, head, thorax and last two abdominal segments dark brown, eighth abdominal segment brown; basal two-thirds of fore femora brown, otherwise all legs are clear yellow like abdominal segments one to seven; antennal segments one, seven and eight brown, two brown in basal two-thirds, yellowish in distal portion, three clear yellow, four and five yellow shaded brownish in the middle, six yellow at base shading to brown at tip; wings clear.

Total body length 1.3 mm.; head length .156 mm.; width .14 mm.; tube length .113 mm. Antennal segments length (width), II, 40 (26); III, 43 (23); IV, 50 (24); V, 43 (20); VI, 40 (20); VII, 36 (18); VIII, 33 microns.

Head slightly longer than wide, narrowing at the eyes, angular in front, cheeks slightly arched; postocular spines prominent, with dilated tips like other prominent body spines; mouth cone short, rounded, reaching two-thirds over prosternum. Antennae slender, third segment almost symmetrical, fourth and fifth distinctly narrowed at both ends.

Prothorax with all normal spines developed but short. Fore wings without double fringe hairs. Tube .73 as long as head.

This species differs from *williamsi* in its more distinct yellow and brown coloring, more slender antennae and the absence of double fringe hairs on the fore wings; the head also is clearly narrowed in front.

Type material: female holotype and thirteen female paratypes taken from wind traps at Kipapa, Oahu, by W. Carter. Holotype in author's collection, some of the paratypes placed with the Pineapple Experiment Station, Honolulu. (Moulton No. 5400.)

## Tribe PHLOETHRIPINI Priesner

**Phloeothrips claratibia** Moulton, new species

Male holotype: Color, head and thorax chestnut brown, abdomen mostly yellow shading to brown toward the tip; legs with all femora brown with yellow at extreme tips and all tibiae and tarsi clear yellow; antennae mostly brown, with segments three, four and five yellowish toward their bases; wings nearly clear in basal half and shaded gray in distal half.

Total body length 1.38 mm.; head length .22 mm.; width .19 mm.; length of fore femora .176 mm.; width .088 mm.; tube length .132 mm. Antennal segments length (width), II, 46 (30); III, 66 (33); IV, 70 (33); V, 66 (26); VI, 53 (23); VII, 43; VIII, 40 microns.

Head broadened somewhat behind eyes, spines on cheeks small, the posterior pair strongest; dorsum with faint though distinct reticulation; eyes large, ocelli placed rather far forward; mouth cone pointed, but rather short reaching three-fourths over prosternum; antennae normal to the genus.

Prothorax with all normal spines present, long and like the post-oculars, with dilated tips; fore femora enlarged, neither femora nor tibia armed, each fore tarsus with a small sharp tooth; forewings with ten double fringe hairs. Tube .6 as long as head.

This species may be separated from *mauiensis* Moulton by its shorter mouth cone and smaller fore femora. It might also be compared with *parvus* Uzel but this latter species has the head constricted neck-like posteriorly while in this species the cheeks are nearly straight.

Described from a single made specimen taken in a wind trap by W. Carter on April 26, 1934, at Kipapa, Oahu. Holotype in author's collection. (Moulton No. 5463.)